Self-Efficacy, Competitiveness, and Effort as Antecedents of Salesperson Performance

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Abstract:

This paper posits and tests a model of the individual characteristics of self-efficacy, competitiveness, and effort as potential antecedents of salesperson performance. Based on two studies in different selling contexts, it is observed that whereas effort mediates the relationship between competitiveness and sales performance, self-efficacy has both direct and indirect effects on sales performance. Structural equation modeling results support the proposed model. Implications and conclusions of the studies are presented.

Keywords: self-efficacy | competitiveness | effort | salesperson performance

Article:

Salesperson performance has long been a topic of research interest to marketing academicians and practitioners. Determining what leads to superior performance is an important aspect of every sales manger's job and may be critical to the survival and success of the firm (Muczyk and Gable 1987). Given that in 1996 sales and marketing accounted for close to 14.5 million jobs in the United States, and that by the year 2006 sales jobs are predicted to increase by 15.5 percent (Bureau of Labor Statistics 1997), examining personal characteristics that result in stronger sales performance is clearly of interest.

Despite decades of research, including several meta-analyses that examined predictors of salesperson performance (e.g., Churchill et al. 1985; Mount and Barrick 1995; Vinchur et al. 1998), questions still remain as to the best individual characteristics affecting salesperson performance. Some 20 years ago, Walker, Churchill, and Ford (1977) posited a comprehensive model of salesperson performance where the antecedents of performance were classified into five categories: (1) personal, organizational, and environmental factors; (2) motivation; (3) aptitude; (4) skill levels; and (5) role perceptions. Whereas many studies have addressed personal, organizational, and environmental factors, and role perception antecedents of sales

performance (e.g., Avila and Fern 1986), fewer have focused on individual characteristics related to motivation, aptitude, and skill level. These variables in particular may be most predictive of performance for sales jobs than for other jobs (Vinchur et al. 1998).

The purpose of this research is to specify and test a model that posits characteristics related to motivation, aptitude, and skill level as antecedents of salesperson performance. Specifically, we consider the effect of a salesperson's self-efficacy, competitiveness, and effort in affecting performance. Whereas earlier researchers may have studied the relationship of each of these variables with performance, this is the first attempt that we know of that posits the specific relationships that we propose to study. This paper first proposes a model and offers a conceptual background that specifies the relations among model constructs. The model is then tested with two samples of salespeople from different selling contexts. The results are offered along with implications for future research.

CONCEPTUAL BACKGROUND AND MODEL

Salesperson Performance

Salesperson performance has been defined and measured using sales volume, dollar sales, managerial evaluations, or self-report measures of sales effectiveness (i.e., "in-role" criteria). Although recent research has distinguished between in-role and "extra-role" aspects of sales performance (MacKenzie, Podsakoff, and Ahearne 1998), this paper will focus on in-role aspects of performance. For the purposes of this research, sales performance is defined as the salesperson's perception of quantity of sales achieved, the quality of customer relations they maintain, and the knowledge they possess about their companies products, competition, and customer needs.

There are two critical reasons to identify the individual characteristics that strongly affect performance. First, salespeople are often the major link between the firm and its customers. As such, customer perceptions of the quality of a firms' products and services are directly affected by contact with salespeople and how well they perform. Second, salesperson performance has been found to be antecedent of a number of individual salesperson outcomes such as job satisfaction (Brown and Peterson 1994; Brown, Cron, and Leigh 1993), organizational commitment (Sager and Johnston 1989; Singh 1998), and turnover (Futrell and Parasuraman 1984; McNeilly and Goldsmith 1991; Singh 1998). Improper selection of sales representatives leads to substandard performance, job dissatisfaction, and excessive turnover (Churchill, Ford, and Walker 1997). The expenses incurred in recruiting, training, lost sales, and managerial time devoted to an improper selection can exceed $100,000 per salesperson (Churchill, Ford, and Walker 1997). Hence, from a recruitment and training perspective it becomes imperative to understand the individual characteristics affecting higher levels of sales performance (Vinchur et al. 1998).

Past research has consistently studied several factors potentially antecedent of sales performance. These include demographic and personal factors (e.g., age, cognitive, verbal, and quantitative ability), organizational and environmental factors, role perception variables, and various personality traits. Although these factors have explained some variance in sales performance,

there is substantial unexplained variance after accounting for most of these factors. Several meta-analytic reviews summarize the results pertaining to these factors. Churchill et al. (1985) found weighted mean correlations of predictor-sales performance ranging from a low of 0.10 for demographic and organization/environmental factors to a high of 0.29 for role variables. Hunter and Hunter (1984) found corrected mean correlations of 0.61, 0.40, and 0.29 between cognitive ability, perceptual ability, and psychomotor ability, respectively, with salesperson performance. Across all types of predictors (including personality traits), Schmitt et al. (1984) found an average uncorrected correlation of 0.17 with salesperson performance.

Several researchers have meta-analyzed the predictive ability of the Big Five personality dimensions (or subdimensions) in relation to sales performance (Barrick and Mount 1991; Hough 1992; Mount and Barrick 1995). Predictor-criterion correlations across these studies have ranged considerably from –0.02 for "openness to experience" (Barrick and Mount 1991) to 0.51 for "conscientiousness" or "will to achieve" (Mount and Barrick 1995). Although only a handful of sales studies were examined by Hough (1992), the subdimension of "potency" (i.e., impact, influence, energy) showed a mean uncorrected correlation of 0.25 with sales effectiveness, whereas "dependability" showed an uncorrected correlation of only 0.06.

In a comprehensive meta analysis, Vinchur et al. (1998) examined personality dimensions and subdimensions of the Big Five as well as numerous ability and demographic-based variables. Across personality dimensions and subdimensions, corrected validity correlations varied widely. For example, the dimension of "conscientiousness" and the subdimensions of "potency" and "achievement" showed corrected correlations of 0.21, 0.28, and 0.25 with sales "supervisor ratings," respectively. For "objective sales criterion," these same corrected correlations were 0.31, 0.26, and 0.41. Other personality dimensions had little effects (i.e., "agreeableness" showed corrected correlations of –0.03 and 0.06 with criterion and ratings measures, respectively). Sales ability and interest consistently showed strong validity correlations. Sales ability had corrected validity correlations of 0.45 and 0.37 with supervisory ratings and sales criterion, whereas sales interest had a correlation of 0.50 with both of these sales variables. Finally, factors such as verbal, cognitive, and quantitative ability showed mixed results as correlations ranged from moderately negative (e.g., –0.28 between "sales" criterion and verbal ability) to strongly positive (e.g., 0.40 between cognitive ability and "ratings" criterion).

As the above literature suggests, many of the factors examined show inconsistent or mixed results as predictors of salesperson performance. However, three conclusions are tenable. First, most of the "general" personality dimensions/subdimensions of the Big Five are poor to modest predictors of salesperson performance. Second, those personality dimensions and subdimensions that are substantially related to salesperson performance, i.e., "conscientiousness, achievement, and potency," reflect motivational, aptitude, or skill levels possessed by salespeople. Third, other characteristics specific to the sale job-sales ability and sales interest-are predictive of salesperson performance (Vinchur et al. 1998). Based on the above conclusions, we present three constructs that are consistent with the above two "sets" of predictors as antecedents to salesperson performance. These variables are self-efficacy, competitiveness, and effort specific to the selling job.

A Proposed Model

Figure 1 posits two correlated exogenous constructs—self-efficacy and competitiveness—and two endogenous constructs—effort and sales person performance. Self-efficacy is hypothesized to directly affect effort (γ_{11}) and directly affect performance (γ_{21}). As such, self-efficacy has both direct and indirect effects on performance. Competitiveness has a direct effect on effort only (γ_{12}). Thus, its effect on performance is indirect (via the competitiveness → effort path). Effort is posited as a direct antecedent of performance (β_{21} in Figure 1). Rationale for each of these paths is now offered.

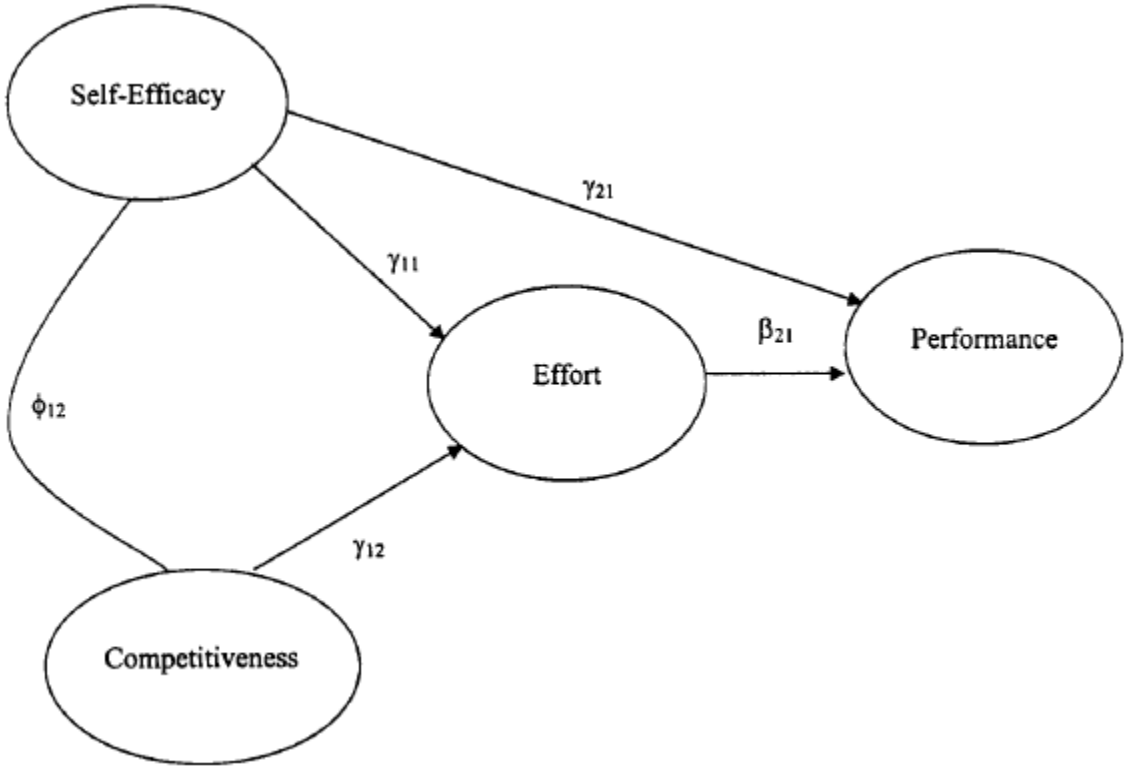

Figure 1. Proposed Model

Self-Efficacy

Self-efficacy refers to the confidence an individual has in his or her ability to perform well in a specific task domain (Bandura 1997). It is a comprehensive summary or judgment of one's perceived capability for performing a specific task. Within the sales context of the present studies, we view self-efficacy as the salespersons' belief that he or she is capable of successfully performing sales-related tasks. This view is highly consistent with extant definitions and operationalizations of salesperson self-efficacy (Brown, Cron, and Slocum 1998; Chowdhury 1993; Sujan, Weitz, and Kumar 1994). Self-efficacy has been associated with work-related performance over numerous settings such as life insurance sales (Barling and Beattie 1983), faculty research productivity (Taylor et al. 1984), and adaptability to technology (Hill, Smith, and Mann 1987). In fact, a recent meta-analysis reviewing 114 studies reported a corrected weighted average correlation of 0.38 between self-efficacy and work-related performance

(Stajkovic and Luthans 1998). When self-efficacy is enhanced, performance increases (Gist, Schwoerer, and Rosen 1989). As such, we posit a direct path from self-efficacy to performance (γ_{21} in Figure 1).

Several researchers note that self-efficacy may also have an indirect effect on performance via its direct effect on effort. That is, individuals who perceive themselves as efficacious activate more effort than those lower in self-efficacy, which, in turn, leads to higher levels of performance (Bandura 1997; Gist and Mitchell 1992; Stajkovic and Luthans 1998). Consistent with this view, VandeWalle et al. (1999) suggest that effort in selling reflects a means for activating ability of task achievement-a key aspect of self-efficacy. Others have also posited and found indirect effects of self-efficacy on performance (via effort) in a sales setting. For example, Chowdhury (1993) found that subjects high in self-efficacy responded well to increases in sales quota vis-a-vis a low self-efficacious group. In studying the difference between those who are oriented toward learning and those who are oriented toward performance, Sujan, Weitz, and Kumar (1994) note that a performance orientation motivates working smart and hard (i.e., expending "effort") for high self-efficacious salespeople. Further, given the consistent theoretical assertion and empirical finding that expectations of self-efficacy determine how much task-related effort will be needed to successfully complete the task (Bandura 1997; Stajkovic and Luthans 1998), a direct self-efficacy → effort path (γ_{11} in Figure 1) is posited.

Competitiveness

In a recent study conducted by the Gallup Management Consulting Group, in which half a million salespeople were interviewed, it was concluded that a key personality trait of successful salespeople was competitiveness (Brewer 1994). Trait competitiveness has been defined as the "enjoyment of interpersonal competition and the desire to win and be better than others" (Spence and Helmreich 1983, p. 41). People who are highly competitive constantly monitor their performance with that of others to make sure that they are surpassing their peers. They attach a great deal of importance to outperforming others and hence exert extra effort in preparation and execution. For the purposes of our studies, we define competitiveness as the enjoyment of competition with other salespeople and the desire to outperform other salespeople.

The few studies that have considered the effects of competitiveness as a personality trait affecting sales performance have produced mixed results (Brown and Peterson 1994; Brown, Cron, and Slocum 1998). For example, although Plotkin (1987) reported a positive relationship between competitiveness and sales performance, Schwepker and Ingram (1994) found that this relationship holds only under certain conditions. Brown and Peterson (1994) found a significant path between competitiveness and performance, but the effect was rather small (standardized coefficient of 0.15). Bartkus, Peterson, and Bellenger (1989) found that a Type A behavior pattern, of which competitiveness is a component, affects sales performance through the mediation of work effort. Further, Ford, Churchill, and Walker observe that "though many studies have found a statistically significant relationship between aptitude variables (such as competitiveness), they have not been able to explain a very large proportion of the variation in sales performance" (1985, p. xiv). They suggest that "a potential problem is that existing studies have used objective measures of salespeople's personal characteristics to estimate sales aptitude. However, the person's own perceptions of his or her competence and ability may have a major

impact on performance and such perceptions may interact strongly with other performance determinants, particularly motivation" (1985, p. xiv).

Others note that the effect of competitiveness on performance is likely indirect via the direct effect of competitiveness on effort. Locke (1968) suggests that the effect of competition on performance was likely to occur through stimulation of higher levels of effort. Following Locke (1968), highly competitive salespeople are likely to exert greater effort than less competitive salespeople. However, in the one sales study that we are aware of that estimated a competitiveness → effort path, the path was not significant (Brown and Peterson 1994). Still, given that competitiveness has not explained a large amount of variance in performance (Brown and Peterson 1994; Ford, Churchill, and Walker 1985), and that a strong direct competitiveness to performance effect is not likely (Locke 1968), effort is expected to mediate the relationship between competitiveness and performance. As such, we hypothesize that competitiveness will have a direct effect on effort (γ_{12} in Figure 1), but not a direct effect on performance.

Effort

In concluding their book on sales performance, Ford, Churchill, and Walker (1985) note that studying the effects of "effort" will be critical to expanding our knowledge about salesperson performance. Although it seems little more than common sense to suggest that the harder a salesperson works (i.e., effort), the better he or she will perform, surprisingly little sales research has empirically tested this premise (Brown and Peterson 1994). For the purpose of the present studies, we define "effort" as the amount of time and energy a salesperson devotes to the selling task relative to other salespeople in the company. This definition is consistent with prevailing views where effort is under the "control" of the salesperson, and is represented by the force, energy, and activities by which work is accomplished (Brown and Peterson 1994; Churchill et al. 1985). Effort is still distinct from performance, though, because effort is much more under the "control" of the salesperson than are the results produced by those efforts (Ingram, Lee, and Skinner 1989).

Both sales force and organizational behavior conceptual models note the key role effort should play in predicting performance (Brown and Peterson 1994; Naylor, Pritchard, and Ilgen 1980; VandeWalle et al. 1999). Most of these models posit effort as a direct antecedent of performance that mediates the effects of other antecedents, that is, "indirect predictors." Some of these indirect predictors include competitiveness and self-efficacy (Brown and Peterson 1994; Stajkovic and Luthans 1998). Consistent with this research, we posit that effort directly affects sales performance, and that self-efficacy and competitiveness directly affect effort.

The few studies that have empirically examined effort's effect on performance show the following. Brown and Peterson (1994) found that the effect of effort on sales performance was rather strong (i.e., standardized path estimate of 0.62). VandeWalle et al. (1999) also found an effort to performance link, and Mowen et al. (1985) found that effort expended by the salesperson significantly influenced sales managers' evaluations of the salesperson. Similarly, Ingram et al. (1989) found that effort mediated the relationship between job commitment and sales performance as well as extrinsic motivation and sales performance. Collectively, these

findings suggest a direct effort → performance path. As such, the model depicted in Figure 1 posits that effort is a direct antecedent of performance (β_{12}).

STUDY 1

Sample and Procedure

For Study 1, 115 salespeople from a cellular phone company selling messaging services to businesses and individuals in the southeastern United States agreed to participate. These field salespeople were organized into sales teams in different locations and reported to first-line sales managers. The salespeople focused on face-to-face selling and all sales were the result of their individual selling activities. Of these 115 salespeople, 91 totally completed the survey for an effective response rate of 79 percent. The median age was 29 years; median income was in the $20,000 to $29,999 range; 51 were female; 52 had a four-year college degree or more; the average amount of time with the organization (i.e., tenure) was 1.89 years; compensation was composed of a base salary plus commission. Table 1 summarizes these characteristics.

Table 1. Description of Data

	Study 1 (n = 91)	**Study 2 (n = 182)**
Male : Female ratio	44 : 56	23 : 77
Age in years: mean	29.68	48.52
median	29.00	48.00
Educational qualifications		
High school graduate	11.0%	12.4%
Some college education	31.9%	40.9%
College graduate	46.2%	24.2%
Some graduate work	3.3%	10.8%
Graduate degree	7.7%	11.3%
Marital status		
Never married	25.3%	4.8%
Currently married	52.8%	80.4%
Married but currently single	21.9%	14.8%
Median income	$20,000–$29,999	$30,000–$39,999

Note: percentages may not add to 100 if there are missing values.

Measures

Performance

We assessed self-reported sales performance using three, seven-point scales anchored by "among the worst in the company" to "among the best in the company." Although others (Brown and Peterson 1994; VandeWalle et al. 1999) used supervisor ratings or company sales records, self-report measures have been used in assessing sales-related performance (Sujan, Weitz, and Kumar 1994). In their meta-analysis, Churchill et al. (1985) observed that there was no consensus in the sales literature on whether job performance should be measured through subjective evaluation by supervisors, by salespeople themselves, or by objective data. They further note that there is no systematic bias by using any of these methods of measurements. Others have also noted the

appropriateness of self-reports in assessing the performance of boundary-spanning employees (Harris and Schaubroeck 1988).

Effort

We measured salesperson effort with three self-report items assessing overall effort in the sales task, number of hours worked, and number of calls made (Brown and Peterson 1994). The items asked the salespeople to rate how they compared with others in the company on bipolar scales anchored by "among the least in the company" to "among the most in the company."

Self-Efficacy

We measured self-efficacy using four, seven-point "strongly disagree" to "strongly agree" items adapted from Sujan, Weitz, and Kumar (1994) and Chowdhury (1993) in a sales context. The items assessed the confidence the salesperson had in a selling context as well as the ability to serve customers.

Competitiveness

We developed a measure of competitiveness specifically for this study. Four items asked the salespeople to assess their level of competitiveness at work on scales anchored by "strongly disagree" to "strongly agree." A list of all the items used in the study are provided in the Appendix along with the factor loadings of the items to their respective constructs.

Results

Covariance structure modeling via LISREL8 Ooreskog and Sorbom 1996) was used to estimate the model depicted in Figure 1. Table 2 presents the results. (Also shown in Table 2 are the correlations among the latent model constructs.) Three indices were used to evaluate the model: the non-normed fit index (NNFI), the comparative fit index (CFI), and the root mean squared error of approximation (RMSEA). The 0.90 level and above have been advocated as acceptable levels of fit for the CFI and NNFI (Hu and Bentler 1995), and levels of 0.10 or less have been advocated as acceptable for the RMSEA (Browne and Cudeck 1993). As Table 2 shows, the model for Study One was close or exceeded these fit levels across indices. The completely standardized path estimates in the structural model indicate that all but one of the hypothesized paths is significant at the 0.05 level or better (the competitiveness to effort path, although not significant, was in the hypothesized direction). The model also accounted for 27 percent of the variance (i.e., R^2) in effort and 97 percent of the variance in performance.[1]

[1] Consistent with the two-step approach advocated by Anderson and Gerbing (1988), a measurement model was estimated prior to examining structural model relationships. The constructs were modeled as four correlated first-order factors, corresponding to a three-item performance factor, a three-item effort factor, a four-item self-efficacy factor, and a four-item competitiveness factor. This model fit well (NNFI = 0.87, CFI = 0.90, and RMSEA = 0.098). We also assessed discriminant validity. For each pair of constructs, we calculated a 95 percent confidence interval around the correlation between the constructs. If the interval does not contain a value of "1," evidence of discriminant validity exist (Anderson and Gerbing 1988). This criterion was met for all pairs of constructs.

Table 2. Results

Fit statistics	χ^2	df	NNFI	CFI	RMSEA	
Study One	149.80	71	0.87	0.90	0.098	
Study Two	156.18	71	0.93	0.94	0.083	
Correlations among latent constructs[a]						
Study One	**AVE**	**Composite α**	**1**	**2**	**3**	**4**
1. Effort	0.62	0.82	1	—	—	—
2. Performance	0.21	0.51	0.95	1	—	—
3. Self-Efficacy	0.71	0.90	0.49	0.68	1	—
4. Competitiveness	0.68	0.89	0.32	0.40	0.28	1
Study Two	**AVE**	**Composite α**	**1**	**2**	**3**	**4**
1. Effort	0.79	0.92	1	—	—	—
2. Performance	0.29	0.64	0.83	1	—	—
3. Self-Efficacy	0.66	0.88	0.38	0.66	1	—
4. Competitiveness	0.60	0.85	0.44	0.32	0.30	1
Completely standardized path estimates[b]						
Paths		**Study 1**	**Study 2**			
Self-efficacy—effort : γ_{11}		0.43 (3.44)	0.28 (3.44)			
Competitiveness–effort : γ_{12}		0.20 (1.82)[c]	0.35 (3.87)			
Effort—performance : β_{21}		0.81 (5.88)	0.67 (8.98)			
Self-efficacy—performance : γ_{21}		0.29 (2.35)	0.41 (4.87)			
R^2—effort		0.27	0.26			
R^2—performance		0.97	0.83			

[a]All correlations are significant at the 0.01 level.
[b] Indicates nonsignificant path.
[c] *t*-values are in parentheses.

In sum, we found support for the fit of the model as well as its explanatory power (i.e., R^2) in Study 1. Still, one path was not significant (competitiveness → effort). This tentative result could be specific to the sales situation or due to a rather small sample size (n = 91). In their meta-analysis, Churchill et al. (1985) find that type of selling situation affected the relationships between predictor variables and aspects of sales performance. As such, we undertook another study using a different sales setting and a larger sample.

STUDY 2

Sample and Procedure

We surveyed real estate salespeople in a large southeastern city. We compiled a mailing list of real estate salespeople and mailed 700 questionnaires with postage-paid return envelopes. A cover letter assured the salespeople of the confidentiality and anonymity of their responses. Of the 700 mailed, 186 were completed. Because of some item nonresponse, 182 were used in all analyses for an effective response rate of 26 percent. The median age of respondents was 48 years; median income was in the $30,000 to $39,999 range; 142 were female; 86 had a four-year college degree or more; the average amount of time with the organization was 8.41 years; compensation was based solely on commission. Table 1 summarizes these characteristics.

Results

Study 2 measures were identical to those of Study 1. As Table 2 shows, the overall fit of the model was good (NNFI = 0.93; CFI = 0.94; RMSEA = 0.083) and all paths were statistically significant, including the competitiveness → effort path ($p < 0.01$). Furthermore, the model accounted for 26 percent of the variance in effort and 87 percent of the variance in performance (R2 estimates). In sum, the model was strongly supported in Study 2.[2]

DISCUSSION

Summary

Findings from the current research build upon previous work examining the relationship between self-efficacy (Stajkovic and Luthans 1998), competitiveness (Brown, Cron, and Slocum 1998), effort (Brown and Peterson 1994; VandeWalle et al. 1999), and salesperson performance. Our results demonstrate general support for the proposed model as its' paths accounted for over 80 percent of the variance in performance and over 25 percent of the variance in effort. This indicates that the proposed linkages are important in understanding salesperson performance.

Results from Study Two support prior findings indicating a direct self-efficacy → performance effect (Brown, Cron, and Slocum 1998). Having confidence in his or her ability to sell appears to be positively related to a salesperson's performance level. This finding is of interest because there have been some questions about self-efficacy's ability to affect performance in complex job settings such as outside sales (Bandura 1997). Findings from both these studies suggest that, even in complex job settings, perceptions of self-efficacy are related to employee performance. The path between self-efficacy and effort was significant in both studies and extends what is known about constructs that are associated with a salesperson expending effort (Brown and Peterson 1994). Evidently, self-efficacy may not only be related to performance directly, but indirectly as well through an increased level of effort. This is an interesting finding and may be related to the demanding nature of the sales client. It may not be enough to be confident of one's ability, but also essential to apply consistent effort to the sales task. Such an explanation is consistent with our previously discussed finding for the self-efficacy → performance path. The amount of effort involved in selling real estate is greater than that of cellular phones. In real estate, the entire sales process is longer and requires multiple contacts with, and more personalized service for, each client (Churchill, Ford, and Walker 1997). As such, both effort and self-efficacy may be salient in such a selling context.

The finding that self-efficacy is positively related to effort is consistent with viewing effort as one type of task strategy that can affect the self-efficacy → performance relationship (Stajkovic and Luthans 1998). It also indicates that self-efficacious salespeople may indeed work smarter and harder (Sujan, Weitz, and Kumar 1994). Salespeople who believe in their ability to perform may be more likely to attribute failure to a lack of effort, rather than an inability to perform, and see increased effort as being an appropriate strategy to improve performance. Individuals with

[2] As in Study 1, a measurement model was estimated prior to examining structural model relationships in Study 2. The fit of this model was good (NNFI = 0.93, CFI = 0.94, and RMSEA = 0.083) and the discriminant validity test used in Study 1 were also supported in Study 2.

lower levels of self-efficacy may be more inclined to "give up," seeing their failure as a result of inadequate skills/ ability. Thus, self-efficacy is one factor that can enable a salesperson to overcome the de-motivating effects of a sales failure and continue to persevere in the selling task.

The relationship between competitiveness and effort was significant in the second study. Although in the predicted direction, the competitiveness → effort path was not significant in Study One. This could be due the nature of compensation in this industry. Salespeople in the cellular phone industry are paid on a salary plus commission basis. The level of competitiveness is likely to be higher if the amount of variable compensation (i.e., commission) is higher. Thus it could be speculated that in this particular industry the salary possibly makes up the majority of the salesperson's compensation.

Finally, our findings confirm the results of other research proposing a direct, positive link between effort and performance (Brown and Peterson 1994; VandeWalle et al. 1999). Given the inherent rejection that accompanies all sales positions, it is interesting to note the strong relationship between effort and performance. Finding such a strong relationship between an individual level construct and performance provides additional support for meta-analytic findings that emphasize the importance of potency and achievement-related constructs as predictors of salesperson performance (Vinchur et al. 1998). Effort, like potency and achievement, may enable a salesperson to continue to work, even in the face of short-term failure.

Implications

There are several important implications of our results for sales managers and sales-based organizations. First, it has been recently estimated that expenses incurred in lost sales and training time from improper salesperson selection can exceed $100,000 (Churchill, Ford, and Walker 1997). Thus, measurement of potential salesperson work ethic (i.e., effort), competitiveness, and self-efficacy can serve as valuable recruitment and screening tools that, in effect, lower the probability of hiring a "bad" salesperson (Vinchur et al. 1998). Second, recent evidence suggests that self-efficacy can be learned via the sales force socialization process (Gist and Mitchell 1992; Saks 1995). In training salespeople, instituting processes that enhance confidence and self-efficacy can only help new salespeople learn and internalize lucrative sales tactics and interaction with potential clients. For example, Gist and Mitchell (1992) suggest that training techniques such as role playing and modeling enhance employee self-efficacy enabling them to more effectively interact with clients and serve their needs. Further, VandeWalle et al. (1999) note the potential importance of self-efficacy as it relates to the goal orientation-performance link. They found that goal orientation affects performance and that this effect may be stronger for those high in self-efficacy, further reinforcing the importance of sales training that fosters self-efficacy. Given that research has shown that employees who feel efficacious of performing particular tasks perform them better (Barling and Beattie 1983), persist at them in the face of adversity, and cope more effectively with change (Zhou 1998), training programs that enhance self-efficacy should be beneficial to the firm's long-run profitability.

A similar implication is tenable for competitiveness. Our findings, in conjunction with Brown, Cron, and Slocum's (1998) findings, suggest that developing management practices that foster

"healthy" competition among salespeople positively affects performance. Competitive and self-efficacious salespeople tend to set higher sales goals and are likely to reach these goals. In this respect, creating an organizational climate that encourages competition may benefit the overall sales organization.

Finally, the salesperson often serves as the only direct link between a firm and its customers. A salesperson with confidence in his or her knowledge of the company's product/service offerings, the competition's product/ service offerings, and his or her customers will be more credible in the salesperson-customer dyad interaction. In the long run, this should positively affect the customer's view of the firm's image, as well as affect the financial health of the firm.

Limitations and Future Research

There are limitations of our research that also serve as avenues for future research. First, though we did examine two different types of sales settings, the findings may only be generalizable to similar sales positions. Further research in much more complex selling tasks, such as national account management in business settings, would be of interest in helping to determine the effect of self-efficacy and effort on performance in increasingly complex tasks. Second, our studies do not provide insight into identifying potential antecedents of self-efficacy. Research should examine the effects of various types of training on salesperson perceptions of self-efficacy as well as supervisory support and personal traits that could affect self-efficacy and effort. Third, as in any study using Structural Equation Modeling (SEM), the relationships are correlational, not causal. Thus, our results are best characterized as being consistent with a set of causal hypotheses. Finally, all of our measures including performance were self-report. Although research suggests that self-ratings do not bias performance estimates (Churchill et al. 1985; Harris and Schaubroeck 1988), studies using objective sales data and supervisor-ratings would allow for a richer understanding of the performance construct and its antecedents.

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